

Inventors

Qazi 09/361,816

April 23, 2004

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:117127 HCAPLUS
DOCUMENT NUMBER: 132:155688
TITLE: Soil treatment compositions and their use
INVENTOR(S): **Rose, Simon Alexander Hanson; Turner, Jayne Anne**
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Water Treatments Limited, UK
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000008114	A1	20000217	WO 1999-EP5126	19990719
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BE, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9956183	A1	20000228	AU 1999-56183	19990719
AU 744421	B2	20020221		
EP 1105443	A1	20010613	EP 1999-942789	19990719
EP 1105443	B1	20031112		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
AT 254159	E	20031115	AT 1999-942789	19990719
US 2001018047	A1	20010830	US 2001-838430	20010419
US 2002136749	A1	20020926	US 2002-57423	20020124
PRIORITY APPLN. INFO.:			GB 1998-16784	A 19980731
			WO 1999-EP5126	W 19990719
			US 1999-361816	A3 19990727
AB	The invention provides aq. soil treatment compns. comprising water and dissolved ionic water-sol. fertilizer in an amt. of .gtoreq.10 wt.% and dissolved water-sol. anionic polymer having .gtoreq.6 dL/g and ionic content .gtoreq.40 wt.%. Such concs. can have low viscosity and be pourable and be used as concs. for diln. in irrigation processes.			
IC	ICM C09K017-18			
	ICS C09K017-22; C05G003-00; C05G003-04; C05C009-00			
CC	58-5 (Cement, Concrete, and Related Building Materials)			
	Section cross-reference(s): 19			
ST	soil stabilization fertilization treatment compn			
IT	Soil stabilization			
	Soil stabilizing agents			
	(soil treatment compns. and their use)			
IT	Fertilizers			
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)			
	(soil treatment compns. and their use)			
IT	57-13-6, Urea, uses 6484-52-2, Ammonium nitrate, uses 7783-20-2,			

Ammonium sulfate, uses 12136-45-7, Potash, uses 15245-12-2, Calcium
ammonium nitrate 25085-02-3, Acrylamide-sodium acrylate copolymer
40623-73-2, Acrylamide-AMPS copolymer 144503-03-7
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);
BIOL (Biological study); USES (Uses)
(soil treatment compns. and their use)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 1 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN

RN 144503-03-7 REGISTRY

CN 2-Propenoic acid, sodium salt, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with sodium 2-propenoate (9CI)

OTHER NAMES:

CN 2-Acrylamido-2-methylpropanesulfonic acid-sodium acrylate copolymer

MF (C7 H13 N O4 S . C3 H4 O2 . Na)x

CI PMS

PCT Polyacrylic

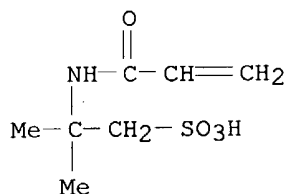
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 15214-89-8

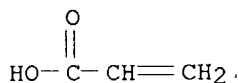
CMF C7 H13 N O4 S



CM 2

CRN 7446-81-3 (79-10-7)

CMF C3 H4 O2 . Na



● Na

5 REFERENCES IN FILE CA (1907 TO DATE)

5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 2 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN

RN 40623-73-2 REGISTRY

CN 1-Propanesulfonic acid, 2-methyl-2-[(1-oxo-2-propenyl)amino]-, polymer with 2-propenamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenamide, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)

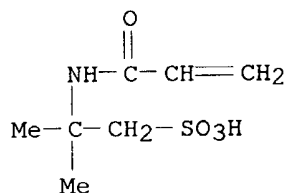
OTHER NAMES:

CN 2-Acrylamido-2-methylpropanesulfonic acid-acrylamide copolymer
 CN 2-Acrylamido-2-methylpropylsulfonic acid-acrylamide polymer
 CN Acrylamide-2-acrylamido-2-methyl-1-propanesulfonic acid copolymer
 CN Acrylamide-2-acrylamido-2-methylpropane-1-sulfonic acid polymer
 CN Acrylamide-2-acrylamido-2-methylpropanesulfonic acid copolymer
 CN Acrylamide-2-acrylamido-2-methylpropanesulfonic acid polymer
 CN Acrylamide-2-acrylamido-2-methylpropanesulfonic acid copolymer
 CN Acrylamide-acrylamido-2-methyl-1-propanesulfonic acid copolymer
 CN Acrylamide-AMPS copolymer
 CN Calgon 340
 CN FR 20
 CN FR 20 (acrylic polymer)
 CN Pyrotrol
 DR 141444-25-9
 MF (C7 H13 N O4 S . C3 H5 N O)x
 CI PMS, COM
 PCT Polyacrylic
 LC STN Files: CA, CAPLUS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, TOXCENTER,
 USPAT2, USPATFULL
 Other Sources: DSL**
 (**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 15214-89-8

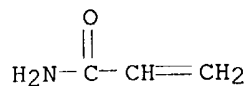
CMF C7 H13 N O4 S



CM 2

CRN 79-06-1

CMF C3 H5 N O



250 REFERENCES IN FILE CA (1907 TO DATE)

28 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

250 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN

RN 25085-02-3 REGISTRY

CN 2-Propenoic acid, sodium salt, polymer with 2-propenamide (9CI) (CA INDEX

NAME)

OTHER CA INDEX NAMES:

CN 2-Propenamide, polymer with sodium 2-propenoate (9CI)
CN Acrylamide, polymer with sodium acrylate (8CI)
CN Acrylic acid, sodium salt, polymer with acrylamide (8CI)

OTHER NAMES:

CN 905MPM
CN 956MPM
CN 977VHM
CN A 140
CN A 140 (flocculant)
CN A 3116
CN Accofloc A 125
CN Accostrength 86
CN Acrylamide-sodium acrylate copolymer
CN Acrylamide-sodium acrylate polymer
CN AD 17
CN AD 27
CN AD 37
CN AD 60
CN Akrygel
CN AL 30
CN Alcomer 120
CN Alcosorb AB 3C
CN AP 1
CN AP 1 (coagulant)
CN Aronfloc A 101
CN Clarifloc 820
CN Crosfloc CFA 20
CN Crosfloc CFA 80
CN Cyanamer 21
CN EarthGuard
CN EM 533
CN EMA 10
CN Espex L
CN Floconit
CN FN 20H
CN Glascol WN 33
CN GPC-A 400
CN Hostacerin PN 73
CN Kayafloc A 275
CN Kurifloc PA 372
CN Magnafloc 156
CN Magnafloc LT 30
CN Magnifloc 1883A
CN Nalco 8873
CN Orfloc AP 1
CN Orfloc OA 23
CN Percol 155
CN Percol 336
CN Photafloc 112.5
CN Polyplus
CN Praestol 2510

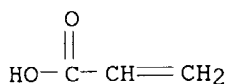
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
DISPLAY

DR 9047-19-2, 162730-94-1, 59597-84-1, 60182-40-3, 64925-54-8, 130298-90-7,
62587-58-0, 98616-28-5, 102903-50-4, 50815-71-9, 119547-31-8, 119938-23-7,

66038-29-7, 112327-29-4, 73666-83-8, 70699-34-2, 158129-73-8, 289046-20-4
MF (C3 H5 N O . C3 H4 O2 . Na)x
CI PMS, COM
PCT Polyacrylic
LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, CHEMLIST, CIN, CSCHEM, IFICDB,
IFIPAT, IFIUDB, MSDS-OHS, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL
Other Sources: DSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

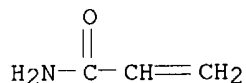
CRN 7446-81-3 (79-10-7)
CMF C3 H4 O2 . Na



● Na

CM 2

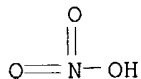
CRN 79-06-1
CMF C3 H5 N O



1199 REFERENCES IN FILE CA (1907 TO DATE)
51 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1199 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN
RN 15245-12-2 REGISTRY
CN Nitric acid, ammonium calcium salt (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Ammonium calcium nitrate
CN Calcium ammonium nitrate
CN CAN
CN CAN (nitrate)
MF Ca . x H3 N . x H N O3
CI COM
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS,
CASREACT, CBNB, CEN, CHEMLIST, CIN, CSCHEM, ENCOMPLIT, ENCOMPLIT2,
ENCOMPPAT, ENCOMPPAT2, GMELIN*, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT,
TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

CRN (7697-37-2)



●x Ca

●x NH₃

186 REFERENCES IN FILE CA (1907 TO DATE)

186 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN

RN 12136-45-7 REGISTRY

CN Potassium oxide (K2O) (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Dipotassium monoxide

CN Dipotassium oxide

CN Potash

CN Potassium oxide

DR 1343-95-9, 37382-43-7

MF K2 O

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMINFORMRX, CHEMLIST, CIN, DETHERM*, DIOGENES, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

K-O-K

13861 REFERENCES IN FILE CA (1907 TO DATE)

69 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

13871 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN

RN 7783-20-2 REGISTRY

CN Sulfuric acid diammonium salt (8CI, 9CI) (CA INDEX NAME)

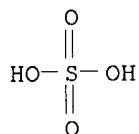
OTHER NAMES:

CN Ammonium sulfate

CN Ammonium sulfate ((NH₄)₂SO₄)

CN Ammonium sulphate

CN Coaltrol LPA 40
 CN Diammonium sulfate
 CN Diammonium sulphate
 CN Dolamin
 CN Liase
 CN Nonnen R 999-10
 CN Para-Go
 CN Sulfuric acid ammonium salt (1:2)
 CN Sulfuric acid, diammonium salt
 DR 64006-53-7, 82168-61-4, 44071-93-4
 MF H3 N . 1/2 H2 O4 S
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO,
 CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST,
 CIN, CSCHM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE,
 ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB,
 IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA,
 PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 CRN (7664-93-9)



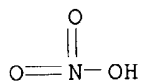
● 2 NH₃

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20965 REFERENCES IN FILE CA (1907 TO DATE)
 111 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 20984 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 7 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 6484-52-2 REGISTRY
 CN Nitric acid ammonium salt (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Ammonium nitrate
 CN Emulite
 CN EXP 200
 CN German saltpeter
 CN Nitric acid, ammonium salt
 CN Norge saltpeter
 CN Norway saltpeter
 CN Norwegian saltpeter
 CN Plenco 12203

CN Varioform I
 DR 95255-40-6
 MF H3 N . H N O3
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*,
 EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*,
 IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT,
 NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT,
 USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 CRN (7697-37-2)



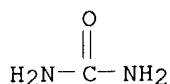
● NH₃

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15710 REFERENCES IN FILE CA (1907 TO DATE)
 83 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 15715 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 8 OF 8 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 57-13-6 REGISTRY
 CN Urea (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Aquacare
 CN Aquadrate
 CN B-I-K
 CN Basodexan
 CN Benural 70
 CN Carbamide
 CN Carbamimidic acid
 CN Carbonyl diamide
 CN Elaqua XX
 CN Eucerin 10% Urea Lotion
 CN Hyanit
 CN Isourea
 CN Keratinamin
 CN Keratinamin Kowa
 CN NSC 34375
 CN Nutraplus
 CN Onychomal

CN Optigen 1200
CN Pastaron
CN Pastaron 10
CN Pastaron 20
CN Pastaron 20 soft
CN Pastaron soft
CN Pseudourea
CN Rubinol ST 010
CN UR
CN Urea perhydrate
CN Ureaphil
CN Ureophil
CN Urepeal
CN Urepeal L
CN Urepearl
CN Urevert
CN Varioform II
FS 3D CONCORD
DR 30535-50-3
MF C H4 N2 O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU,
DETERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHAR, PIRA,
PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN,
USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

72175 REFERENCES IN FILE CA (1907 TO DATE)
3167 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
72223 REFERENCES IN FILE CAPLUS (1907 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d que

L2 76233 SEA FILE=HCAPLUS ABB=ON PLU=ON FERTILIZERS+OLD,NT/CT
 L3 786 SEA FILE=HCAPLUS ABB=ON PLU=ON SOIL STABILIZING AGENTS+OLD/CT

 L4 3827 SEA FILE=HCAPLUS ABB=ON PLU=ON SOIL STABILIZATION/CT
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON UREA/CN
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM NITRATE/CN
 L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM SULFATE/CN
 L8 4 SEA FILE=REGISTRY ABB=ON PLU=ON POTASH/CN
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CALCIUM AMMONIUM NITRATE/CN
 L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25085-02-3
 L11 1 SEA FILE=REGISTRY ABB=ON PLU=ON 40623-73-2
 L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 144503-03-7
 L13 229839 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 OR (L5 OR L6 OR L7 OR L8 OR L9)
 L14 1019116 SEA FILE=HCAPLUS ABB=ON PLU=ON (AQUEOUS OR WATER SOL?(2A) (POL YMER OR MONOMER) (5A)? IONIC?) OR (L10 OR L11 OR L12)
 L15 27489 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 AND L14
 L16 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND (L3 OR L4)
 L17 2802 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 AND L15
 L18 31 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (SOIL TREAT?)
 L19 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 NOT L16
 L26 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 AND ((AQUEOUS OR WATER SOL?) (2A) (POLYMER OR MONOMER) (5A)? IONIC? OR (L10 OR L11 OR L12))
 L27 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 NOT (L19 OR L16)

=> d ibib ab hitind 1-10

L27 ANSWER 1 OF 10 HCAPLUS) COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:92419 HCAPLUS
 DOCUMENT NUMBER: 138:122150
 TITLE: Biodegradable water-soluble anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers
 INVENTOR(S): Sanders, John Larry; Kimmerly, James Michael; Mazo, Grigory
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S., 12 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6515090	B1	20030204	US 2000-562519	20000501
US 2002049291	A1	20020425	US 2001-845650	20010430
US 6515091	B2	20030204		
US 2002132949	A1	20020919	US 2001-20726	20011212
US 6525155	B2	20030225		
US 2002161152	A1	20021031	US 2001-17234	20011213
US 6518382	B2	20030211		
US 2002077436	A1	20020620	US 2001-21986	20011217
US 6515092	B2	20030204		

US 2002128413	A1	20020912	US 2001-23554	20011218
US 6596831	B2	20030722		
US 2002123587	A1	20020905	US 2001-25106	20011219
US 6566477	B2	20030520		

PRIORITY APPLN. INFO.: US 2000-562519 A2 20000501

AB Title polymers comprise recurring polymeric subunits, preferably made up of vinylic and dicarboxylic monomers, such as vinyl acetate and/or vinyl alc. and maleic anhydride, itaconic anhydride and/or citraconic anhydride. The polymers are prepd. by free radical polymn. and then hydrolysis to replace ester groups with alc. groups. The polymers are complexed with ions and/or mixed with fertilizers or seed to yield agriculturally useful compns. Thus, 20 g maleic anhydride was mixed with 10 mL vinyl acetate and 2.4 mL di-tert-butylperoxide at .apprx. 70.degree. for 5 h, and hydrolyze in the presence of 18 g sodium hydroxide at 100.degree. for 2 h to give white-colored powder.

IC ICM C08F122-10

NCL 526321000; 526266000; 526269000; 526270000; 526271000; 526314000; 526318200; 526318430; 526319000; 526325000

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)
Section cross-reference(s): 37

IT **Fertilizers**

RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(nitrogen; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(phosphorus; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(potassium; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Polymers, biological studies**

RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(water-sol.; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT 7733-02-ODP, Zinc sulfate, complexes with vinyl acetate-maleic anhydride **polymers** 7758-98-7DP, Copper(II) sulfate, complexes with vinyl acetate-maleic anhydride **polymers** 7773-01-5DP, Manganese dichloride, complexes with vinyl acetate-maleic anhydride **polymers** 9011-07-8DP, Maleic anhydride-vinyl acetate copolymer, sapond. 10028-22-5DP, Iron(III) sulfate, complexes with vinyl acetate-maleic anhydride **polymers** 371970-36-4DP, sapond. 371970-37-5DP, sapond. 371970-38-6DP, sapond.

RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:51971 HCAPLUS

DOCUMENT NUMBER: 136:85340

TITLE: Free flowing nitrogen fertilizer composition with

enhanced deposition/anti drift characteristics

INVENTOR(S): Brigance, Mickey; McManic, Greg

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002006874	A1	20020117	US 2001-761643	20010118
US 6423109	B2	20020723		
US 2003126900	A1	20030710	US 2002-193728	20020711
PRIORITY APPLN. INFO.:			US 2000-176617P P	20000119
			US 2001-761643 A1	20010118

AB A free-flowing fertilizer comprising: (i) from 25 to 99.5% by wt. of a powd. water sol. nitrogen contg. fertilizer; (ii) from 0.05 to 1.5% by wt. of a polyacrylamide liq. emulsion/dispersion; (iii) from 0.1 to 3.0% by wt. of a polyacrylamide powder whose particle size is primarily 50 to 100 mesh in size is disclosed.

IC ICM A01N025-04

ICS C05C009-00; C05C011-00

NCL 504361000

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)

IT **Fertilizers**

RL: AGR (Agricultural use); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)

(nitrogen, powd., water sol.; free flowing nitrogen fertilizer compn. with enhanced deposition/anti drift characteristics)

IT **25085-02-3, Magnafloc 156**

RL: MOA (Modifier or additive use); USES (Uses)

(deposition enhancer/drift reducer in free flowing nitrogen fertilizer compn.)

L27 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:680861 HCAPLUS

DOCUMENT NUMBER: 135:226496

TITLE: Soil amendments

INVENTOR(S): Sato, Kazuyuki; Yamano, Yumi

PATENT ASSIGNEE(S): Hymo Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001254077	A2	20010918	JP 2000-66353	20000310

PRIORITY APPLN. INFO.: JP 2000-66353 20000310
AB The soil amendments are prepd. from **ionic** polymeric dispersing agents and **anionic water-sol. polymers**. It is easy to use and has good soil-dispersing ability. The **anionic water-sol. polymers** are prepd. from (meth)acrylic acid and acrylamide by copolymn. in the presence of the ionic polymeric dispersing agents.
IC ICM C09K017-22
ICS C09K017-20; C09K101-00
CC 19-6 (Fertilizers, Soils, and Plant Nutrition)
IT **Fertilizers**
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(soil amendments)

L27 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:500422 HCAPLUS
DOCUMENT NUMBER: 133:116181
TITLE: Cyanamide aqueous solutions containing water-soluble polymers
INVENTOR(S): Shirataki, Takumi; Takahashi, Noboru
PATENT ASSIGNEE(S): Shinetsu Kasei K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000204007	A2	20000725	JP 1999-4780	19990112

PRIORITY APPLN. INFO.: JP 1999-4780 19990112
AB The aq. solns., useful as fertilizers, agrochem. fungicides, dormancy breaking agents, etc., contain water-sol. polymers to increase wettability of soils and plants and fix cyanamide (I) to objects thus prolonging the effect. Metolose 90SH 4000 was dissolved in a stock soln. of I (15.9%), prepd. from lime nitrogen and adjusted to pH 4.5 with H3PO4 to give a test soln. Retention of I and herbicidal effect of the soln. against grass weeds were tested in a cabbage field.
IC ICM A01N047-40
ICS A01N025-02; A01N025-24; C05G003-00; C05G005-00; C05C007-00
CC 5-3 (Agrochemical Bioregulators)
Section cross-reference(s): 19
IT Polyelectrolytes
(**cationic**; cyanamide aq. solns. contg. **water-sol. polymers** to improve wettability of objects and adhesion to objects)
IT **Fertilizers**
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(nitrogen; cyanamide aq. solns. contg. water-sol. polymers to improve wettability of objects and adhesion to objects)
IT Surfactants
(**nonionic**; cyanamide aq. solns. contg. **water-sol. polymers** to improve wettability of objects and adhesion to objects)

L27 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:405413 HCAPLUS
DOCUMENT NUMBER: 133:42926
TITLE: Water-retaining gels for plant growing, their
manufacture, and uses
INVENTOR(S): Ohno, Katsuaki; Aoto, Yoshitaka
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2000166380	A2	20000620	JP 1998-348358	19981208
PRIORITY APPLN. INFO.:				JP 1998-348358	19981208
AB	The gels contain (A) 0.5-20 wt.% anionic water-sol. polymers selected from Na alginate, carboxymethyl starch (etherification degree 0.4-1.6), and carboxymethyl tamarind (etherification degree 0.4-1.6), (B) salts of Al, Mg, and/or Ca, and (C) 30-99.9 wt.% H ₂ O. The gels are (1) placed in containers having holes and buried in soils in the rhizospheres of cultivated plants, (2) placed on or mixed with the soils in the rhizospheres of the plants, or (3) dried, pulverized, placed in the rhizospheres of the plants, and sprayed with H ₂ O for water retention. The polymers are slowly biodegraded in soils for controlled release of water, and Mg and/or Ca released are absorbed by the plants as fertilizer components. An aq. soln. contg. 0.3 wt. part Ca(H ₂ PO ₄) ₂ was added to an aq. soln. contg. 0.5 wt. part Na alginate (Duck Algin S) to give a gel (H ₂ O content 99.2 wt.%) showing good water retention and shape retention.				
IC	ICM A01G001-00				
	ICS C08K003-24; C08L003-08; C08L005-00; C08L005-04; C09K017-32; C09K101-00				
CC	19-6 (Fertilizers, Soils, and Plant Nutrition) Section cross-reference(s): 5, 38				
IT	Fertilizers RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (calcium; gels from biodegradable water-sol. polymers and Al, Mg, and/or Ca for controlled-release water supply to plants)				
IT	Fertilizers RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (magnesium; gels from biodegradable water-sol. polymers and Al, Mg, and/or Ca for controlled-release water supply to plants)				

L27 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:314651 HCAPLUS
DOCUMENT NUMBER: 132:307820
TITLE: Fertilizer compositions comprising anti-drift agents
INVENTOR(S): Rose, Simon Alexander Hanson; Snowden, Jayne Anne
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Water Treatments Limited, UK
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026160	A1	20000511	WO 1999-EP7995	19991021
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1129052	A1	20010905	EP 1999-953910	19991021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AU 761016	B2	20030529	AU 2000-10423	19991021
US 6288010	B1	20010911	US 1999-428100	19991027
ZA 2001003368	A	20011128	ZA 2001-3368	20010425
PRIORITY APPLN. INFO.:			GB 1998-23752	A 19981030
			WO 1999-EP7995	W 19991021
AB	An aq. compn. comprises a inorg. water-sol. compd. in an amt. of at least 10 % and an anti-drift agent which is a water sol. anionic polymer of intrinsic viscosity at least 6 dL/g, which is formed from a water-sol. monomer or monomer blend. The water-sol. polymer is present in an amt. up to 1.9 wt. % based on wt. of compn. The compn. can be a liq. fertilizer conc. that can conveniently be applied through conventional spray distribution equipment, without the need for addnl. dosing of anti-drift control chems. Said compn. (1) can be a low viscosity liq. anti-drift agent that can be combined with a herbicide or pesticide in conventional spray distribution equipment.			
IC	ICM C05G003-02			
	ICS C05G003-00			
CC	19-6 (Fertilizers, Soils, and Plant Nutrition)			
	Section cross-reference(s): 5			
IT	Fertilizers			
	Polyphosphates			
	RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (fertilizer formulations contg. anti-drift agents)			
IT	25085-02-3, Sodium acrylate-acrylamide polymer 69418-26-4			
	RL: MOA (Modifier or additive use); USES (Uses) (anti-drift agent for fertilizer and herbicide formulations)			
REFERENCE COUNT:	5	THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		
L27 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN				
ACCESSION NUMBER:	1999:728153 HCAPLUS			
DOCUMENT NUMBER:	131:322105			
TITLE:	Manufacture of cultivation soil from dewatered sludge cake of inorganic wastewater			
INVENTOR(S):	Kato, Nobuo; Nishimura, Hiroyuki; Abiko, Seiji			
PATENT ASSIGNEE(S):	Telnite Co., Ltd., Japan			
SOURCE:	Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF			
DOCUMENT TYPE:	Patent			
LANGUAGE:	Japanese			
FAMILY ACC. NUM. COUNT:	1			

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11315280	A2	19991116	JP 1998-122119	19980501
PRIORITY APPLN. INFO.:			JP 1998-122119	19980501
AB	The soil is manufd. by (1) mixing dewatered cake of inorg. sludge with water-sol. polymers, (2) classifying the mixt., (3) adding soil amendments such as bark compost, leaf mold, peat moss, etc., and optionally fertilizers to the mixt., and then (4) curing the mixt. Lime-based solidifying agents and/or CaO may be added after the addn. of water-sol. polymers and neutralization of pH may be performed before the curing process by contacting with air. Dewatered cake obtained from flocculation process for quarry wastewater was kneaded with guar gum and the mixt. was sieved to remove .ltoreq.1 mm and .gtoreq.10 mm particles,. The sieved product was cured indoors for 7 days and then mixed with bark compost to give plant cultivation soil. The soil was further mixed with complex fertilizer and Ca superphosphate and used for cultivation of komatsuna.			
IC	ICM C09K017-48 ICS C02F011-00; C09K101-00			
CC	19-6 (Fertilizers, Soils, and Plant Nutrition)			
IT	Fertilizers RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (manuf. of cultivation soil from dewatered sludge cake of inorg. wastewater, soil amendments, and optionally fertilizers)			
IT	25085-02-3, Acrylamide-sodium acrylate copolymer RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (A 140; manuf. of cultivation soil from dewatered sludge cake of inorg. wastewater, soil amendments, and optionally fertilizers)			

L27 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1992:5832 HCAPLUS
 DOCUMENT NUMBER: 116:5832
 TITLE: Polymeric hydrogel soil substitute
 INVENTOR(S): Barbary, Salah
 PATENT ASSIGNEE(S): Fr.
 SOURCE: PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9111410	A1	19910808	WO 1990-FR79	19900201
W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9050474	A1	19910821	AU 1990-50474	19900201
PRIORITY APPLN. INFO.:			WO 1990-FR79	19900201
AB	A soil substitute, which incorporates N-P-K-trace element fertilizers, is made of a polymeric hydrogel, with high water-absorbing capacity. Granular cross-linked Na acrylate gel (7.5 kg) was treated with 2.5 L liq. fertilizer (160 g solids) and dried at 70.degree.. The product was mixed with sandy soil and tested in pot for the culture of ryegrass and trefoil.			

The compn. may also be used for seed coating.

IC ICM C05G003-00
ICS A01C001-06

CC 19-2 (Fertilizers, Soils, and Plant Nutrition)

IT **Fertilizers**
RL: OCCU (Occurrence)
(nitrogen-phosphorus-potassium-trace element, hydrogel polymer soil substitutes contg.)

IT 9004-34-6, Cellulose, biological studies 9004-34-6D, Cellulose, polymers with acrylic compds. 9005-25-8, Starch, biological studies
25085-02-3 31212-13-2
RL: BIOL (Biological study)
(soil substitute hydrogel contg.)

L27 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:444215 HCAPLUS
DOCUMENT NUMBER: 115:44215

TITLE: Aqueous pesticide dispersions, prepared using coacervating polymers

INVENTOR(S): Chamberlain, Peter; Langley, John Graham
PATENT ASSIGNEE(S): Allied Colloids Ltd., UK
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 379379	A2	19900725	EP 1990-300554	19900118
EP 379379	A3	19910619		
EP 379379	B1	19941130		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
ES 2066116	T3	19950301	ES 1990-300554	19900118
CA 2008139	AA	19900720	CA 1990-2008139	19900119
AU 9048579	A1	19900726	AU 1990-48579	19900119
AU 639432	B2	19930729		
ZA 9000406	A	19910327	ZA 1990-406	19900119

PRIORITY APPLN. INFO.: GB 1989-1254 A 19890120

AB A stable dispersion comprises insol. pesticide particles incorporated into a polymer coacervate shells. The coacervate is preferably formed from a sol. low mol.-wt. cationic polymer and a sol. high mol.-wt. anionic polymer. A soln. A comprised 120 g poly(iso-Bu acrylate) and 120 g chlorpyrifos in 520 g CH₂Cl₂, soln. B 168 g 20% poly(acrylamide-Na acrylate) in 600 g water, and soln. C 76 g 35% BC777 (cationic urea-formaldehyde resin) in 100 g water. Solns. C and A were added, under stirring to soln. B, to give an emulsion. CH₂Cl₂ was distd. off at 45.degree., under reduced pressure, to give a dispersion. The dispersion, was sprayed on cauliflower, to control the cabbage root fly.

IC ICM B01J013-02
ICS A01N025-00; A01N025-28

CC 5-1 (Agrochemical Bioregulators)
Section cross-reference(s): 38

IT **Fertilizers**
Plant hormones and regulators
RL: PROC (Process)

(dispersions of, aq., polymer coacervates in)
IT 9010-88-2 **25085-02-3** 134688-95-2, BC 777
RL: BIOL (Biological study)
(pesticide aq. dispersion by coacervation with)

L27 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:218103 HCAPLUS

DOCUMENT NUMBER: 98:218103

TITLE: Clarification of ammonium polyphosphate solutions

INVENTOR(S): Dobry, Alan M.

PATENT ASSIGNEE(S): Standard Oil Co., USA

SOURCE: U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 950,974,
abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4354944	A	19821019	US 1981-251295	19810406
US 4354943	A	19821019	US 1978-950974	19781013
PRIORITY APPLN. INFO.:			US 1977-781625	19770328
			US 1978-950974	19781013

AB Suspended black carbonaceous material, contained in aq. ammonium polyphosphate solns. that are made from impure wet-process phosphoric acid, is removed by adding **ionic, water-sol** .., org. **polymers**, holding the mixt. until the suspended carbonaceous material flocculates and floats to the surface, and sepg. the flocculated carbonaceous material from the ammonium polyphosphate soln.

IC B01D021-01

NCL 210727000

CC 49-5 (Industrial Inorganic Chemicals)

IT **Fertilizers**

RL: USES (Uses):

(ammonium polyphosphate, carbonaceous impurities removal from liq., by flocculation and floating)

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L2 76233 SEA FILE=HCAPLUS ABB=ON PLU=ON FERTILIZERS+OLD,NT/CT
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON UREA/CN
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM NITRATE/CN
 L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM SULFATE/CN
 L8 4 SEA FILE=REGISTRY ABB=ON PLU=ON POTASH/CN
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CALCIUM AMMONIUM NITRATE/CN
 L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25085-02-3
 L11 1 SEA FILE=REGISTRY ABB=ON PLU=ON 40623-73-2
 L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 144503-03-7
 L13 229839 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 OR (L5 OR L6 OR L7 OR L8
 OR L9)
 L28 3484 SEA FILE=HCAPLUS ABB=ON PLU=ON ((AQUEOUS OR WATER SOL?) (2A) (P
 OLYMER OR MONOMER) (5A)? IONIC?) OR (L10 OR L11 OR L12)
 L30 120 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L13
 L32 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND L2

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L32 ANSWER 1 OF 11 HCAPLUS) COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:92419 HCAPLUS
 DOCUMENT NUMBER: 138:122150
 TITLE: Biodegradable water-soluble anionic vinyl-dicarboxylic
 acid polymers as carriers for fertilizers
 INVENTOR(S): Sanders, John Larry; Kimmerly, James Michael; Mazo,
 Grigory
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S., 12 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6515090	B1	20030204	US 2000-562519	20000501
US 2002049291	A1	20020425	US 2001-845650	20010430
US 6515091	B2	20030204		
US 2002132949	A1	20020919	US 2001-20726	20011212
US 6525155	B2	20030225		
US 2002161152	A1	20021031	US 2001-17234	20011213
US 6518382	B2	20030211		
US 2002077436	A1	20020620	US 2001-21986	20011217
US 6515092	B2	20030204		
US 2002128413	A1	20020912	US 2001-23554	20011218
US 6596831	B2	20030722		
US 2002123587	A1	20020905	US 2001-25106	20011219
US 6566477	B2	20030520		

PRIORITY APPLN. INFO.: US 2000-562519 A2 20000501

AB Title polymers comprise recurring polymeric subunits, preferably made up
 of vinylic and dicarboxylic monomers, such as vinyl acetate and/or vinyl
 alc. and maleic anhydride, itaconic anhydride and/or citraconic anhydride.
 The polymers are prepd. by free radical polymn. and then hydrolysis to
 replace ester groups with alc. groups. The polymers are complexed with

ions and/or mixed with fertilizers or seed to yield agriculturally useful compns. Thus, 20 g maleic anhydride was mixed with 10 mL vinyl acetate and 2.4 mL di-tert-butylperoxide at .apprx. 70.degree. for 5 h, and hydrolyze in the presence of 18 g sodium hydroxide at 100.degree. for 2 h to give white-colored powder.

IC ICM C08F122-10

NCL 526321000; 526266000; 526269000; 526270000; 526271000; 526314000; 526318200; 526318430; 526319000; 526325000

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)
Section cross-reference(s): 37

IT **Fertilizers**

RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(nitrogen; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(phosphorus; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Fertilizers**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(potassium; biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **Polymers, biological studies**

RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**water-sol.**; biodegradable water-sol. **anionic** vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT **57-13-6, Urea, biological studies** 7704-34-9, Sulfur, biological studies

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(biodegradable water-sol. anionic vinyl-dicarboxylic acid polymers as carriers for fertilizers)

IT 7733-02-ODP, Zinc sulfate, complexes with vinyl acetate-maleic anhydride **polymers** 7758-98-7DP, Copper(II) sulfate, complexes with vinyl acetate-maleic anhydride **polymers** 7773-01-5DP, Manganese dichloride, complexes with vinyl acetate-maleic anhydride **polymers** 9011-07-8DP, Maleic anhydride-vinyl acetate copolymer, sapond. 10028-22-5DP, Iron(III) sulfate, complexes with vinyl acetate-maleic anhydride **polymers** 371970-36-4DP, sapond. 371970-37-5DP, sapond. 371970-38-6DP, sapond.

RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(biodegradable **water-sol. anionic** vinyl-dicarboxylic acid polymers as carriers for fertilizers)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:51971 HCAPLUS

DOCUMENT NUMBER: 136:85340

TITLE: Free flowing nitrogen fertilizer composition with

enhanced deposition/anti drift characteristics
 INVENTOR(S): Brigance, Mickey; McManic, Greg
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 7 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002006874	A1	20020117	US 2001-761643	20010118
US 6423109	B2	20020723		
US 2003126900	A1	20030710	US 2002-193728	20020711

PRIORITY APPLN. INFO.:
 US 2000-176617P P 20000119
 US 2001-761643 A1 20010118

AB A free-flowing fertilizer comprising: (i) from 25 to 99.5% by wt. of a powd. water sol. nitrogen contg. fertilizer; (ii) from 0.05 to 1.5% by wt. of a polyacrylamide liq. emulsion/dispersion; (iii) from 0.1 to 3.0% by wt. of a polyacrylamide powder whose particle size is primarily 50 to 100 mesh in size is disclosed.

IC ICM A01N025-04
 ICS C05C009-00; C05C011-00

NCL 504361000

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)

IT **Fertilizers**

RL: AGR (Agricultural use); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (nitrogen, powd., water sol.; free flowing nitrogen fertilizer compn. with enhanced deposition/anti drift characteristics)

IT **25085-02-3**, Magnafloc 156

RL: MOA (Modifier or additive use); USES (Uses)
 (deposition enhancer/drift reducer in free flowing nitrogen fertilizer compn.)

IT **57-13-6**, Urea, biological studies **6484-52-2**, Ammonium nitrate, biological studies 7757-79-1, Potassium nitrate, biological studies **7783-20-2**, Ammonium Sulfate, biological studies 7783-28-0, Diammonium phosphate.

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (free flowing nitrogen fertilizer compn. with enhanced deposition/anti drift characteristics contg.)

L32 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:680861 HCAPLUS

DOCUMENT NUMBER: 135:226496

TITLE: Soil amendments

INVENTOR(S): Sato, Kazuyuki; Yamano, Yumi

PATENT ASSIGNEE(S): Hymo Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 JP 2001254077 A2 20010918 JP 2000-66353 20000310
 PRIORITY APPLN. INFO.: JP 2000-66353 20000310
 AB The soil amendments are prepd. from **ionic** polymeric dispersing
 agents and **anionic water-sol. polymers**. It is easy to use and has good soil-dispersing ability.
 The **anionic water-sol. polymers**
 are prepd. from (meth)acrylic acid and acrylamide by copolymn. in the
 presence of the ionic polymeric dispersing agents.
 IC ICM C09K017-22
 ICS C09K017-20; C09K101-00
 CC 19-6 (Fertilizers, Soils, and Plant Nutrition)
 IT **Fertilizers**
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (soil amendments)

L32 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:500422 HCAPLUS
 DOCUMENT NUMBER: 133:116181
 TITLE: Cyanamide aqueous solutions containing water-soluble
 polymers
 INVENTOR(S): Shirataki, Takumi; Takahashi, Noboru
 PATENT ASSIGNEE(S): Shinetsu Kasei K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000204007	A2	20000725	JP 1999-4780	19990112
PRIORITY APPLN. INFO.:			JP 1999-4780	19990112
AB The aq. solns., useful as fertilizers, agrochem. fungicides, dormancy breaking agents, etc., contain water-sol. polymers to increase wettability of soils and plants and fix cyanamide (I) to objects thus prolonging the effect. Metolose 90SH 4000 was dissolved in a stock soln. of I (15.9%), prepd. from lime nitrogen and adjusted to pH 4.5 with H3PO4 to give a test soln. Retention of I and herbicidal effect of the soln. against grass weeds were tested in a cabbage field.				
IC ICM A01N047-40 ICS A01N025-02; A01N025-24; C05G003-00; C05G005-00; C05C007-00				
CC 5-3 (Agrochemical Bioregulators) Section cross-reference(s): 19				
IT Polyelectrolytes (cationic; cyanamide aq. solns. contg. water-sol. polymers to improve wettability of objects and adhesion to objects)				
IT Fertilizers RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (nitrogen; cyanamide aq. solns. contg. water-sol. polymers to improve wettability of objects and adhesion to objects)				
IT Surfactants (nonionic; cyanamide aq. solns. contg. water-sol. polymers to improve wettability of objects and adhesion to objects)				

L32 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:405413 HCAPLUS
 DOCUMENT NUMBER: 133:42926
 TITLE: Water-retaining gels for plant growing, their
 manufacture, and uses
 INVENTOR(S): Ohno, Katsuaki; Aoto, Yoshitaka
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000166380	A2	20000620	JP 1998-348358	19981208
PRIORITY APPLN. INFO.:			JP 1998-348358	19981208

AB The gels contain (A) 0.5-20 wt.% **anionic water-sol. polymers** selected from Na alginate, carboxymethyl starch (etherification degree 0.4-1.6), and carboxymethyl tamarind (etherification degree 0.4-1.6), (B) salts of Al, Mg, and/or Ca, and (C) 30-99.9 wt.% H₂O. The gels are (1) placed in containers having holes and buried in soils in the rhizospheres of cultivated plants, (2) placed on or mixed with the soils in the rhizospheres of the plants, or (3) dried, pulverized, placed in the rhizospheres of the plants, and sprayed with H₂O for water retention. The polymers are slowly biodegraded in soils for controlled release of water, and Mg and/or Ca released are absorbed by the plants as fertilizer components. An aq. soln. contg. 0.3 wt. part Ca(H₂PO₄)₂ was added to an aq. soln. contg. 0.5 wt. part Na alginate (Duck Algin S) to give a gel (H₂O content 99.2 wt.%) showing good water retention and shape retention.

IC ICM A01G001-00
 ICS C08K003-24; C08L003-08; C08L005-00; C08L005-04; C09K017-32; C09K101-00

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)
 Section cross-reference(s): 5, 38

IT **Fertilizers**
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (calcium; gels from biodegradable water-sol. polymers and Al, Mg, and/or Ca for controlled-release water supply to plants)

IT **Fertilizers**
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (magnesium; gels from biodegradable water-sol. polymers and Al, Mg, and/or Ca for controlled-release water supply to plants)

L32 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:314651 HCAPLUS
 DOCUMENT NUMBER: 132:307820
 TITLE: Fertilizer compositions comprising anti-drift agents
 INVENTOR(S): Rose, Simon Alexander Hanson; Snowden, Jayne Anne
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Water Treatments Limited, UK
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026160	A1	20000511	WO 1999-EP7995	19991021
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1129052	A1	20010905	EP 1999-953910	19991021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AU 761016	B2	20030529	AU 2000-10423	19991021
US 6288010	B1	20010911	US 1999-428100	19991027
ZA 2001003368	A	20011128	ZA 2001-3368	20010425
PRIORITY APPLN. INFO.:			GB 1998-23752	A 19981030
			WO 1999-EP7995	W 19991021
AB	An aq. compn. comprises a inorg. water-sol. compd. in an amt. of at least 10 % and an anti-drift agent which is a water sol. anionic polymer of intrinsic viscosity at least 6 dL/g, which is formed from a water-sol. monomer or monomer blend. The water-sol. polymer is present in an amt. up to 1.9 wt. % based on wt. of compn. The compn. can be a liq. fertilizer conc. that can conveniently be applied through conventional spray distribution equipment, without the need for addnl. dosing of anti-drift control chems. Said compn. (1) can be a low viscosity liq. anti-drift agent that can be combined with a herbicide or pesticide in conventional spray distribution equipment.			
IC	ICM C05G003-02			
	ICS C05G003-00			
CC	19-6 (Fertilizers, Soils, and Plant Nutrition)			
	Section cross-reference(s): 5			
IT	Fertilizers			
	Polyphosphates			
	RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)			
	(fertilizer formulations contg. anti-drift agents)			
IT	25085-02-3 , Sodium acrylate-acrylamide polymer 69418-26-4			
	RL: MOA (Modifier or additive use); USES (Uses)			
	(anti-drift agent for fertilizer and herbicide formulations)			
IT	6484-52-2 , Ammonium nitrate, biological studies 7447-40-7,			
	Potassium chloride, biological studies 7722-76-1, Monoammonium phosphate 7778-77-0, MonoPotassium phosphate 7778-80-5, Potassium sulfate, biological studies 7783-20-2 , Ammonium sulfate, biological studies 7783-28-0, Diammonium phosphate 10124-37-5, Calcium nitrate			
	RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)			
	(fertilizer formulations contg. anti-drift agents)			
REFERENCE COUNT:	5	THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L32 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2000:117127 HCAPLUS
 DOCUMENT NUMBER: 132:155688

TITLE: Soil treatment compositions and their use
 INVENTOR(S): Rose, Simon Alexander Hanson; Turner, Jayne Anne
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Water Treatments Limited, UK
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000008114	A1	20000217	WO 1999-EP5126	19990719
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9956183	A1	20000228	AU 1999-56183	19990719
AU 744421	B2	20020221		
EP 1105443	A1	20010613	EP 1999-942789	19990719
EP 1105443	B1	20031112		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 254159	E	20031115	AT 1999-942789	19990719
US 2001018047	A1	20010830	US 2001-838430	20010419
US 2002136749	A1	20020926	US 2002-57423	20020124

PRIORITY APPLN. INFO.:

GB 1998-16784 A 19980731
 WO 1999-EP5126 W 19990719
 US 1999-361816 A3 19990727

AB The invention provides aq. soil treatment compns. comprising water and dissolved ionic water-sol. fertilizer in an amt. of .gtoreq.10 wt.% and dissolved **water-sol. anionic polymer** having .gtoreq.6 dL/g and ionic content .gtoreq.40 wt.%. Such concs. can have low viscosity and be pourable and be used as concs. for diln. in irrigation processes.

IC ICM C09K017-18

ICS C09K017-22; C05G003-00; C05G003-04; C05C009-00

CC 58-5 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 19

IT **Fertilizers**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(soil treatment compns. and their use)

IT 57-13-6, Urea, uses 6484-52-2, Ammonium nitrate, uses

7783-20-2, Ammonium sulfate, uses 12136-45-7, Potash,

uses 15245-12-2, Calcium ammonium nitrate 25085-02-3,

Acrylamide-sodium acrylate copolymer 40623-73-2, Acrylamide-AMPS copolymer 144503-03-7

RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);

BIOL (Biological study); USES (Uses)

(soil treatment compns. and their use)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:728153 HCAPLUS
 DOCUMENT NUMBER: 131:322105
 TITLE: Manufacture of cultivation soil from dewatered sludge cake of inorganic wastewater
 INVENTOR(S): Kato, Nobuo; Nishimura, Hiroyuki; Abiko, Seiji
 PATENT ASSIGNEE(S): Telnite Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11315280	A2	19991116	JP 1998-122119	19980501
PRIORITY APPLN. INFO.:			JP 1998-122119	19980501

AB The soil is manufd. by (1) mixing dewatered cake of inorg. sludge with water-sol. polymers, (2) classifying the mixt., (3) adding soil amendments such as bark compost, leaf mold, peat moss, etc., and optionally fertilizers to the mixt., and then (4) curing the mixt. Lime-based solidifying agents and/or CaO may be added after the addn. of water-sol. polymers and neutralization of pH may be performed before the curing process by contacting with air. Dewatered cake obtained from flocculation process for quarry wastewater was kneaded with guar gum and the mixt. was sieved to remove .ltoreq.1 mm and .gtoreq.10 mm particles,. The sieved product was cured indoors for 7 days and then mixed with bark compost to give plant cultivation soil. The soil was further mixed with complex fertilizer and Ca superphosphate and used for cultivation of komatsuna.

IC ICM C09K017-48
 ICS C02F011-00; C09K101-00

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)

IT **Fertilizers**
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (manuf. of cultivation soil from dewatered sludge cake of inorg. wastewater, soil amendments, and optionally fertilizers)

IT **25085-02-3, Acrylamide-sodium acrylate copolymer**
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (A 140; manuf. of cultivation soil from dewatered sludge cake of inorg. wastewater, soil amendments, and optionally fertilizers)

L32 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:5832 HCAPLUS
 DOCUMENT NUMBER: 116:5832
 TITLE: Polymeric hydrogel soil substitute
 INVENTOR(S): Barbary, Salah
 PATENT ASSIGNEE(S): Fr.
 SOURCE: PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9111410	A1	19910808	WO 1990-FR79	19900201
W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9050474	A1	19910821	AU 1990-50474	19900201
PRIORITY APPLN. INFO.: WO 1990-FR79 19900201				
AB A soil substitute, which incorporates N-P-K-trace element fertilizers, is made of a polymeric hydrogel, with high water-absorbing capacity. Granular cross-linked Na acrylate gel (7.5 kg) was treated with 2.5 L liq. fertilizer (160 g solids) and dried at 70.degree.. The product was mixed with sandy soil and tested in pot for the culture of ryegrass and trefoil. The compn. may also be used for seed coating.				
IC ICM C05G003-00				
ICS A01C001-06				
CC 19-2 (Fertilizers, Soils, and Plant Nutrition)				
IT Fertilizers				
RL: OCCU (Occurrence)				
(nitrogen-phosphorus-potassium-trace element, hydrogel polymer soil substitutes contg.)				
IT 9004-34-6, Cellulose, biological studies 9004-34-6D, Cellulose, polymers with acrylic compds. 9005-25-8, Starch, biological studies				
25085-02-3 31212-13-2				
RL: BIOL (Biological study)				
(soil substitute hydrogel contg.)				
L32 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN				
ACCESSION NUMBER: 1991:444215 HCAPLUS				
DOCUMENT NUMBER: 115:44215				
TITLE: Aqueous pesticide dispersions, prepared using coacervating polymers				
INVENTOR(S): Chamberlain, Peter; Langley, John Graham				
PATENT ASSIGNEE(S): Allied Colloids Ltd., UK				
SOURCE: Eur. Pat. Appl., 10 pp.				
CODEN: EPXXDW				
DOCUMENT TYPE: Patent				
LANGUAGE: English				
FAMILY ACC. NUM. COUNT: 8				
PATENT INFORMATION:				

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 379379	A2	19900725	EP 1990-300554	19900118
EP 379379	A3	19910619		
EP 379379	B1	19941130		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
ES 2066116	T3	19950301	ES 1990-300554	19900118
CA 2008139	AA	19900720	CA 1990-2008139	19900119
AU 9048579	A1	19900726	AU 1990-48579	19900119
AU 639432	B2	19930729		
ZA 9000406	A	19910327	ZA 1990-406	19900119
PRIORITY APPLN. INFO.: GB 1989-1254 A 19890120				
AB A stable dispersion comprises insol. pesticide particles incorporated into a polymer coacervate shells. The coacervate is preferably formed from a sol. low mol.-wt. cationic polymer and a sol. high mol.-wt. anionic				

polymer. A soln. A comprised 120 g poly(iso-Bu acrylate) and 120 g chlorpyrifos in 520 g CH₂Cl₂, soln. B 168 g 20% poly(acrylamide-Na acrylate) in 600 g water, and soln. C 76 g 35% BC777 (cationic urea-formaldehyde resin) in 100 g water. Solns. C and A were added, under stirring to soln. B, to give an emulsion. CH₂Cl₂ was distd. off at 45.degree., under reduced pressure, to give a dispersion. The dispersion, was sprayed on cauliflower, to control the cabbage root fly.

IC ICM B01J013-02
ICS A01N025-00; A01N025-28
CC 5-1 (Agrochemical Bioregulators)
Section cross-reference(s): 38
IT **Fertilizers**
Plant hormones and regulators
RL: PROC (Process)
(dispersions of, aq., polymer coacervates in)
IT 9010-88-2 **25085-02-3** 134688-95-2, BC 777
RL: BIOL (Biological study)
(pesticide aq. dispersion by coacervation with)

L32 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:218103 HCAPLUS
DOCUMENT NUMBER: 98:218103
TITLE: Clarification of ammonium polyphosphate solutions
INVENTOR(S): Dobry, Alan M.
PATENT ASSIGNEE(S): Standard Oil Co., USA
SOURCE: U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 950,974,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4354944	A	19821019	US 1981-251295	19810406
US 4354943	A	19821019	US 1978-950974	19781013
PRIORITY APPLN. INFO.:			US 1977-781625	19770328
			US 1978-950974	19781013

AB Suspended black carbonaceous material, contained in aq. ammonium polyphosphate solns. that are made from impure wet-process phosphoric acid, is removed by adding **ionic, water-sol** .., org. **polymers**, holding the mixt. until the suspended carbonaceous material flocculates and floats to the surface, and sepg. the flocculated carbonaceous material from the ammonium polyphosphate soln.

IC B01D021-01
NCL 210727000
CC 49-5 (Industrial Inorganic Chemicals)
IT **Fertilizers**
RL: USES (Uses)
(ammonium polyphosphate, carbonaceous impurities removal from liq., by flocculation and floating)

=> d que 131

L2 76233 SEA FILE=HCAPLUS ABB=ON PLU=ON FERTILIZERS+OLD,NT/CT
 L3 786 SEA FILE=HCAPLUS ABB=ON PLU=ON SOIL STABILIZING AGENTS+OLD/CT

 L4 3827 SEA FILE=HCAPLUS ABB=ON PLU=ON SOIL STABILIZATION/CT
 L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON UREA/CN
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM NITRATE/CN
 L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON AMMONIUM SULFATE/CN
 L8 4 SEA FILE=REGISTRY ABB=ON PLU=ON POTASH/CN
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CALCIUM AMMONIUM NITRATE/CN
 L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON 25085-02-3
 L11 1 SEA FILE=REGISTRY ABB=ON PLU=ON 40623-73-2
 L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 144503-03-7
 L13 229839 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 OR (L5 OR L6 OR L7 OR L8
 OR L9)
 L28 3484 SEA FILE=HCAPLUS ABB=ON PLU=ON ((AQUEOUS OR WATER SOL?) (2A) (P
 OLYMER OR MONOMER) (5A)? IONIC?) OR (L10 OR L11 OR L12)
 L30 120 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L13
 L31 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (L3 OR L4)

=> d ibib ab hitind 1-3

L31 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:157850 HCAPLUS

DOCUMENT NUMBER: 136:184310

TITLE: Water-soluble homopolymers and copolymers having an improved environmental acceptability

INVENTOR(S): Mertens, Richard; Herth, Gregor

PATENT ASSIGNEE(S): Stockhausen G.m.b.H. & Co. K.-G., Germany

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002016445	A1	20020228	WO 2001-EP6236	20010601
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10041392	A1	20020307	DE 2000-10041392	20000823
AU 2001072445	A5	20020304	AU 2001-72445	20010601
EP 1313774	A1	20030528	EP 2001-951544	20010601
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001013340	A	20030715	BR 2001-13340	20010601
US 2003181620	A1	20030925	US 2003-344694	20030224

PRIORITY APPLN. INFO.:

DE 2000-10041392 A 20000823

WO 2001-EP6236 W 20010601

AB The invention relates to water-sol. homopolymers and copolymers having an EbC50 value according to the algae toxicity test of *Scenedesmus subspicatus* of greater than 10 mg/L and are manufd. by treatment of the polymers prepd. from .gtoreq.1 of (meth)acrylate deriv. or (meth)acrylic acid with an ammonium salt and a water-sol. amine and then heat treated. The invention also relates to the use of these polymers as flocculation aids or thickeners and as a constituent of a plant protective agent or of an erosion protective agent.

IC ICM: C08F006-00

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 5, 58

IT Drilling fluids

Flocculants

Heat treatment

Soil stabilizing agents

Thickening agents

(water-sol. homopolymers and copolymers treated by amines and ammonium salts subsequently by heat for improved environmental acceptability)

IT 25085-02-3P, Acrylamide-sodium acrylate copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)

(water-sol. homopolymers and copolymers treated by amines and ammonium salts subsequently by heat for improved environmental acceptability)

IT 78-96-6, Isopropanolamine 109-83-1, Methylaminoethanol 7783-20-2

, Ammonium sulfate, uses 12125-02-9, Ammonium chloride, uses

13325-10-5, 4-Amino-1-butanol

RL: NUU (Other use, unclassified); USES (Uses)

(water-sol. homopolymers and copolymers treated by amines and ammonium salts subsequently by heat for improved environmental acceptability)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:117127 HCAPLUS

DOCUMENT NUMBER: 132:155688

TITLE: Soil treatment compositions and their use

INVENTOR(S): Rose, Simon Alexander Hanson; Turner, Jayne Anne

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Water Treatments Limited, UK

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000008114	A1	20000217	WO 1999-EP5126	19990719
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,			

CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9956183 A1 20000228 AU 1999-56183 19990719
AU 744421 B2 20020221
EP 1105443 A1 20010613 EP 1999-942789 19990719
EP 1105443 B1 20031112

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

AT 254159 E 20031115 AT 1999-942789 19990719
US 2001018047 A1 20010830 US 2001-838430 20010419
US 2002136749 A1 20020926 US 2002-57423 20020124

PRIORITY APPLN. INFO.: GB 1998-16784 A 19980731
WO 1999-EP5126 W 19990719
US 1999-361816 A3 19990727

AB The invention provides aq. soil treatment compns. comprising water and dissolved ionic water-sol. fertilizer in an amt. of .gtoreq.10 wt.% and dissolved **water-sol. anionic polymer** having .gtoreq.6 dL/g and ionic content .gtoreq.40 wt.%. Such concs. can have low viscosity and be pourable and be used as concs. for diln. in irrigation processes.

IC ICM C09K017-18
ICS C09K017-22; C05G003-00; C05G003-04; C05C009-00

CC 58-5 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): 19

IT **Soil stabilization**
Soil stabilizing agents
(soil treatment compns. and their use)

IT **Fertilizers**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(soil treatment compns. and their use)

IT **57-13-6, Urea, uses 6484-52-2, Ammonium nitrate, uses 7783-20-2, Ammonium sulfate, uses 12136-45-7, Potash, uses 15245-12-2, Calcium ammonium nitrate 25085-02-3, Acrylamide-sodium acrylate copolymer 40623-73-2, Acrylamide-AMPS copolymer 144503-03-7**
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(soil treatment compns. and their use)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:297523 HCAPLUS
DOCUMENT NUMBER: 120:297523

TITLE: Polyacrylamide soil modifiers enhanced with nutrients.
INVENTOR(S): Miller, Edward Elliott
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 586911	A1	19940316	EP 1993-112865	19930811

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
 CA 2105831 AA 19940312 CA 1993-2105831 19930909
 AU 9347304 A1 19940317 AU 1993-47304 19930910

PRIORITY APPLN. INFO.: US 1992-943643 19920911

AB The title compn., usable for profile-modifying and revegetating permeable soils, comprises a water-sol. polymer, a redox couple made of a water-sol. Fe(II) salt and an oxidizing agent, and agricultural nutrient. The compn. is mixed with water and applied to a subterranean or soil-surface formation, wherein Fe²⁺ is oxidized to Fe³⁺, to gel the polymer, making the subterranean or soil surface formation impermeable. A compn. was made of poly(acrylamide-acrylic acid) (90:10) 25, water 15, 10 % Fe(NH₄)₂(SO₄)₂ 5, 10 % NaClO₃ 5, and Nitroform 50 g.

IC ICM C09K017-00

ICS C05G003-00

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)

IT **Soil stabilization**

(agents, acrylic polymers-contg. compns., nutrient-enhanced)

IT **6484-52-2**, Ammonium nitrate, uses 7697-37-2D, Nitric acid, salts with alkali metals 7727-21-1, Potassium persulfate 7758-94-3, Ferrous chloride 7775-27-1, Sodium persulfate 7782-68-5D, Iodic acid, salts with alkali metals 7782-77-6D, Nitrous acid, salts with alkali metals 7789-31-3D, Bromic acid, salts with alkali metals 7790-92-3D, Hypochlorous acid, salts with alkali metals 7790-93-4D, Chloric acid, salts with alkali metals 10045-89-3, Ferrous ammonium sulfate

RL: USES (Uses)

(soil stabilizer contg. acrylic polymer and, agricultural)

IT 9003-06-9, Poly(acrylamide-acrylic acid) **144503-03-7**

RL: USES (Uses)

(soil stabilizer contg., agricultural)

=> d que

L36 4992 SEA (AQUEOUS OR WATER SOL?) (2A) (POLYMER OR MONOMER) (5A) (IONIC?
OR ANIONIC?)
L37 3273 SEA (AQUEOUS? OR ANIONIC? OR IONIC? OR WATER SOL? OR INORGAN?) (3A) FERTILI?
L38 12 SEA L36 AND L37
L39 10 DUP REM L38 (2 DUPLICATES REMOVED)

=> d bib abs 139 1-10

L39 ANSWER 1 OF 10 (WPIX) COPYRIGHT 2004 THOMSON DERWENT on STN DUPLICATE 1
AN 2000-365529 [31] WPIX
DNC C2000-110391
TI Composition for applying fertilizers, herbicides and pesticides to land or crops, comprises an anti-drift agent, an inorganic water-soluble compound and a **water soluble anionic polymer**

DC A14 A97 C03 C07
IN ROSE, S A H; SNOWDEN, J A
PA (CIBA) CIBA SPECIALTY CHEM WATER TREATMENTS LTD
CYC 90
PI WO 2000026160 A1 20000511 (200031)* EN 29p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT UA UG UZ VN YU ZA ZW
AU 2000010423 A 20000522 (200040)
EP 1129052 A1 20010905 (200151) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
US 6288010 B1 20010911 (200154)
ZA 2001003368 A 20020130 (200217) 36p
MX 2001004210 A1 20010801 (200238)
AU 761016 B 20030529 (200346)
ADT WO 2000026160 A1 WO 1999-EP7995 19991021; AU 2000010423 A AU 2000-10423 19991021; EP 1129052 A1 EP 1999-953910 19991021, WO 1999-EP7995 19991021; US 6288010 B1 US 1999-428100 19991027; ZA 2001003368 A ZA 2001-3368 20010425; MX 2001004210 A1 MX 2001-4210 20010427; AU 761016 B AU 2000-10423 19991021
FDT AU 2000010423 A Based on WO 2000026160; EP 1129052 A1 Based on WO 2000026160; AU 761016 B Previous Publ. AU 2000010423, Based on WO 2000026160
PRAI GB 1998-23752 19981030
AN 2000-365529 [31] WPIX
AB WO 200026160 A UPAB: 20000630
NOVELTY - A composition comprising at least 10%, by weight, of an inorganic water-soluble compound, and upto 1.9%, by weight, of anti-drift agent, which is a **water soluble anionic polymer** with an intrinsic viscosity of at least 6dl/g, and formed from water soluble monomer or monomer blend, in a water solution, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a process for preparing the novel composition, where the **inorganic** compound is a **fertilizer** or herbicide

adjuvant, selected from ammonium nitrate, ammonium sulfate, monoammonium phosphate, diammonium phosphate, monopotassium phosphate, dipotassium phosphate, polyphosphate salts, potassium chloride, potassium sulfate, and calcium nitrate;

(2) a process of applying fertilizer to land or crops, comprising mixing the composition prepared in (1) with water, and spraying the mixture;

(3) a process of applying a herbicide or pesticide to land or crops, comprising mixing water a herbicide or pesticide, and the novel composition, and then spraying the mixture; and

(4) a method of improving the spray drift properties during fertilizer, herbicide or pesticide spraying, by combining the novel composition with water prior to spraying.

USE - The composition and methods are used for applying fertilizers, herbicides and pesticides to land or crops (claimed).

ADVANTAGE - The novel composition contains an anti-drift agent, preventing the formation of fine droplets which could be carried beyond the area intended to be treated.

Dwg.0/0

L39 ANSWER 2 OF 10 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN DUPLICATE 2
 AN 2000-205697 [18] WPIX
 DNC C2000-063477
 TI Aqueous soil treatment composition useful in fertilizer/soil conditioner composition comprises water, dissolved **ionic water-soluble fertilizer** and dissolved **water-soluble anionic polymer**.
 DC A14 A97 C04
 IN ROSE, S A H; TURNER, J A
 PA (CIBA) CIBA SPECIALTY CHEM WATER TREATMENTS LTD; (ROSE-I) ROSE S A H; (TURN-I) TURNER J A
 CYC 85
 PI WO 2000008114 A1 20000217 (200018)* EN 24p
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SL SZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
 GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
 UA UG US UZ VN YU ZW
 AU 9956183 A 20000228 (200030)
 EP 1105443 A1 20010613 (200134) EN
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI
 US 2001018047 A1 20010830 (200151)
 AU 744421 B 20020221 (200223)
 MX 2001001161 A1 20010601 (200235)
 US 2002136749 A1 20020926 (200265)
 EP 1105443 B1 20031112 (200380) EN
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI
 DE 69912805 E 20031218 (200407)
 ADT WO 2000008114 A1 WO 1999-EP5126 19990719; AU 9956183 A AU 1999-56183
 19990719; EP 1105443 A1 EP 1999-942789 19990719, WO 1999-EP5126 19990719;
 US 2001018047 A1 Div ex US 1999-361816 19990727, US 2001-838430 20010419;
 AU 744421 B AU 1999-56183 19990719; MX 2001001161 A1 MX 2001-1161
 20010131; US 2002136749 A1 Div ex US 1999-361816 19990727, US 2002-57423
 20020124; EP 1105443 B1 EP 1999-942789 19990719, WO 1999-EP5126 19990719;

DE 69912805 E DE 1999-612805 19990719, EP 1999-942789 19990719, WO 1999-EP5126 19990719

FDT AU 9956183 A Based on WO 2000008114; EP 1105443 A1 Based on WO 2000008114; AU 744421 B Previous Publ. AU 9956183, Based on WO 2000008114; EP 1105443 B1 Based on WO 2000008114; DE 69912805 E Based on EP 1105443, Based on WO 2000008114

PRAI GB 1998-16784 19980731

AN 2000-205697 [18] WPIX

AB WO 200008114 A UPAB: 20000412

NOVELTY - An aqueous soil treatment composition comprises water and, in solution, (A) at least 10 wt.% **ionic water-soluble fertilizer**, and (B) a **water-soluble anionic polymer** with an intrinsic viscosity of at least 6 dl/g and is formed from water-soluble monomer or monomer blend of which at least 40 wt.% is anionic monomer.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (a) a soil treatment process comprising irrigating an area of soil with water to which has been added an aqueous soil treatment composition as defined above; and (b) a method for the production of an aqueous soil treatment composition as above comprising providing an **aqueous solution of fertilizer** (A) and mixing with it polymer (B) in powder form.

USE - The aqueous soil treatment composition may be applied directly to soil as a fertilizer/soil conditioner composition but this composition is intended particularly as a concentrate for use in irrigation, especially for spray irrigation, where irrigation water is pumped to a spray manifold and sprayed over a very large crop area.

ADVANTAGE - The viscosity of the fertilizer solution is not increased to an inconvenient degree and the aqueous soil treatment composition can be processed using the equipment that is in place for processing of solution of fertilizer alone. The low viscosity of polymers in the composition means that they can be added without difficulty to the fertilizer solution at the fertilizer production plant. The prevention of excessive viscosity allows the compositions to be processed at the fertilizer production plant using conventional equipment.

Dwg.0/0

L39 ANSWER 3 OF 10 USPATFULL on STN

AN 2004:77042 USPATFULL

TI Ionically balanced polyacrylamide composition

IN Brigance, Mickey, Germantown, TN, UNITED STATES

McManic, Greg, Germantown, TN, UNITED STATES

PI US 2004058821 A1 20040325

AI US 2003-621130 A1 20030716 (10)

PRAI US 2002-396150P 20020716 (60)

DT Utility

FS APPLICATION

LREP SMITH, GAMBRELL & RUSSELL, LLP, SUITE 3100, PROMENADE II, 1230 PEACHTREE STREET, N.E., ATLANTA, GA, 30309-3592

CLMN Number of Claims: 22

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 810

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An ionically balanced composition for applying to soil or plants containing an aqueous solution or dry mixture of at least one nonionic acrylamide polymer and an ionically balanced diluent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L39 ANSWER 4 OF 10 USPATFULL on STN
AN 2002:250811 USPATFULL
TI Soil treatment compositions and their use
IN Rose, Simon Alexander Hanson, Bradford, UNITED KINGDOM
Turner, Jayne Anne, Keighley, UNITED KINGDOM
PI US 2002136749 A1 20020926
AI US 2002-57423 A1 20020124 (10)
RLI Division of Ser. No. US 1999-361816, filed on 27 Jul 1999, PENDING
PRAI GB 1998-16784 19980731
DT Utility
FS APPLICATION
LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE
PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 573

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides aqueous soil treatment compositions comprising water and dissolved **ionic water-soluble fertiliser** in an amount of at least 10 wt. % and dissolved **water-soluble anionic polymer** having IV at least 60 l/g and ionic content at least 40 wt. %. Such concentrates can have low viscosity and be pourable and be used as concentrates for dilution in irrigation processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L39 ANSWER 5 OF 10 USPATFULL on STN
AN 2001:152909 USPATFULL
TI Compositions comprising anti-drift agents and processes and methods for their use
IN Rose, Simon Alexander Hanson, West Yorkshire, United Kingdom
Snowden, Jayne Anne, West Yorkshire, United Kingdom
PA Ciba Specialty Chemicals Water Treatments Limited, Bradford, United Kingdom (non-U.S. corporation)
PI US 6288010 B1 20010911
AI US 1999-428100 19991027 (9)
PRAI DE 1998-23752 19981030
DT Utility
FS GRANTED
EXNAM Primary Examiner: Clardy, S. Mark
LREP Crichton, David R.
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 796

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A composition (1) comprising water, in solution,

a) an inorganic water-soluble compound in an amount of at least 10%,

b) an anti-drift agent which is a **water soluble anionic polymer** of intrinsic viscosity at least 6 dl/g which is formed from water soluble monomer or monomer blend,

characterized in that the water-soluble polymer (b) is present in an amount up to 1.9 wt. % based on weight of composition.

Said composition (1) can be a liquid fertilizer concentrate that can conveniently be applied through conventional spray distribution equipment without the need for additional dosing of anti-drift control chemicals. Said composition (1) can be a low viscosity liquid anti-drift agent that can be combined with a herbicide or pesticide in conventional spray distribution equipment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L39 ANSWER 6 OF 10 USPATFULL on STN
AN 91:52204 USPATFULL
TI Suspension of water-soluble polymers in aqueous media containing dissolved salts
IN Burdick, Charles L., Landenberg, PA, United States
PA Aqualon Company, Wilmington, DE, United States (U.S. corporation)
PI US 5028263 19910702
AI US 1989-396265 19890821 (7)
DCD 20061128
RLI Continuation of Ser. No. US 1988-229379, filed on 5 Aug 1988, now patented, Pat. No. US 4883536
DT Utility
FS Granted
EXNAM Primary Examiner: Morris, Theodore; Assistant Examiner: Brusman, David M.
LREP Kuller, Mark D.
CLMN Number of Claims: 37
ECL Exemplary Claim: 1,23
DRWN No Drawings
LN.CNT 837

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An aqueous suspension comprising 15% or more, by total weight of the suspension, of at least one **anionic** or nonionic **water-soluble polymer** dispersed in an aqueous solution of an ammonium salt having a multivalent anion, wherein the weight ratio of the ammonium salt to the water is at least 0.15, a process for preparing the same, and use of the same in a variety of applications, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L39 ANSWER 7 OF 10 USPATFULL on STN
AN 89:95481 USPATFULL
TI Suspension of water-soluble polymers in aqueous media containing dissolved salts
IN Burdick, Charles L., Landenberg, PA, United States
PA Aqualon Company, Wilmington, DE, United States (U.S. corporation)
PI US 4883536 19891128
AI US 1988-229379 19880805 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Morris, Theodore
LREP Kuller, Mark D.
CLMN Number of Claims: 26

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 803

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An aqueous suspension comprising 15% or more, by total weight of the suspension, of at least one **anionic** or nonionic **water-soluble polymer** dispersed in an aqueous solution of an ammonium salt having a multivalent anion, wherein the weight ratio of the ammonium salt to the water is at least 0.15, a process for preparing the same, and use of the same in a variety of applications, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L39 ANSWER 8 OF 10 USPATFULL on STN

AN 80:64992 USPATFULL

TI Plant growth media utilizing polyurethane hydrogel

IN Wood, Louis L., Rockville, MD, United States

PA W. R. Grace & Co., New York, NY, United States (U.S. corporation)

PI US 4241537 19801230

AI US 1979-37928 19790510 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Bagwill, Robert E.

LREP Plunkett, Richard P., McDowell, Jr., William W.

CLMN Number of Claims: 23

ECL Exemplary Claim: 1

DRWN 5 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 614

AB A plant growth media in the form of a gel which is useful for growing plants in the form of seeds, seedlings, cuttings, nursery stock, etc., is obtained by dissolving a water-soluble polyisocyanate capped prepolymer containing said growing plant in an aqueous medium optionally containing various plant growth additives such as fertilizer, agricultural modified minerals and the like. The media can be formed in a variety of shapes.

L39 ANSWER 9 OF 10 EUROPATFULL COPYRIGHT 2004 WILA on STN

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

AN 1105443 EUROPATFULL ED 20031117 EW 200346 FS PS

TIEN SOIL TREATMENT COMPOSITIONS AND THEIR USE.

TIDE ZUSAMMENSTZUNGEN ZUR BODENBEHANDLUNG UND IHRE VERWENDUNG.

TIFR COMPOSITIONS DE TRAITEMENT DU SOL ET LEUR UTILISATION.

IN ROSE, Simon, Alexander, Hanson, 40 Institute Road, Eccleshill, Bradford, West Yorkshire BD2 2HX, GB;

TURNER, Jayne, Anne, South View Farm, Upper Marsh Lane, Oxenhope, Keighley, West Yorkshire BD22 9RH, GB

PA Ciba Specialty Chemicals Water Treatments Limited, Cleckheaton Road, Low Moor, P.O. Box 38, Bradford, West Yorkshire BD12 0JZ, GB

PAN 225761

OS MEPB2003057 EP 1105443 B1 0013

SO Wila-EPS-2003-H46-T1

DT Patent

LA Anmeldung in Englisch; Veroeffentlichung in Englisch

DS R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE;
R IT; R LI; R LU; R MC; R NL; R PT; R SE; R AL; R LT; R LV; R MK; R RO;
R SI

PIT EPB1 EUROPÄISCHE PATENTSCHRIFT (Internationale Anmeldung)
PI EP 1105443 B1 20031112
OD 20010613
AI EP 1999-942789 19990719
PRAI GB 1998-16784 19980731
RLI WO 99-EP5126 990719 INTAKZ
WO 00008114 000217 INTPNR
REP EP 415141 A WO 85-01938 A
WO 86-06714 A DE 3344638 A
US 4227911 A

L39 ANSWER 10 OF 10 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 357962 EUROPATFULL ED 20000910 EW 199011 FS OS STA B
TIEN Suspension of water-soluble polymers in aqueous media containing
dissolved salts.
TIDE Suspension wasserloeslicher Polymere in aufgeloeste Salze enthaltenden
waessrigen Medien.
TIFR Suspension de polymeres hydrosolubles dans des milieux aqueux contenant
des sels dissouts.
IN Burdick, Charles Lee, 307 Walker Road, Landenberg Pennsylvania 19350, US
PA AQUALON COMPANY, 2711 Centerville Road Little Falls Centre One,
Wilmington Delaware 19850-5417, US
PAN 866810
AG Lederer, Franz, Dr. et al, Van der Werth, Lederer & Riederer
Patentanwaelte Lucile-Grahn-Strasse 22, D-8000 Muenchen 80, DE
AGN 7432
OS ESP1990011 EP 0357962 A2 900314
SO Wila-EPZ-1990-H11-T1
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R ES; R FR; R GB; R IT; R LI; R NL; R SE
PIT EPA2 EUROPÄISCHE PATENTANMELDUNG
PI EP 357962 A2 19900314
OD 19900314
AI EP 1989-114358 19890803
PRAI US 1988-229379 19880805

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

AN 357962 EUROPATFULL UP 20010906 EW 199441 FS PS STA B
TIEN Suspension of water-soluble polymers in aqueous media containing
dissolved salts.
TIDE Suspension wasserloeslicher Polymere in aufgeloeste Salze enthaltenden
waessrigen Medien.
TIFR Suspension de polymeres hydrosolubles dans des milieux aqueux contenant
des sels dissouts.
IN Burdick, Charles Lee, 307 Walker Road, Landenberg Pennsylvania 19350, US
PA AQUALON COMPANY, 2711 Centerville Road Little Falls Centre One,
Wilmington Delaware 19850-5417, US
PAN 866810
AG Lederer, Franz, Dr. et al, Lederer, Keller & Riederer Patentanwaelte

AGN Prinzregentenstrasse 16, D-80538 Muenchen, DE
7431
OS EPB1994072 EP 0357962 B1 941012
SO Wila-EPS-1994-H41-T1
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R ES; R FR; R GB; R IT; R LI; R NL; R SE
PIT EPB1 EUROPAEISCHE PATENTSCHRIFT
PI EP 357962 B1 19941012
OD 19900314
AI EP 1989-114358 19890803
PRAI US 1988-229379 19880805
REP EP 3582 A US 4069062 A
REN DATABASE CHEMICAL ABSTRACTS, no. 84:165801j, Columbus, Ohio, US &
JP-A-51023535 Kirk-Othmer, Encyclopedia of Chemical Technology, third
edition, vol. 12, page 45, (1980)